63 SEQUENCE LISTING

<110> Emil Israel Katz

<120> PEPTIDES REPRESENTATIVE OF POLYPEPTIDES OF INTEREST AND ANTIBODIES DIRECTED THEREAGAINST, AND METHODS, SYSTEMS AND KITS FOR GENERATING AND UTILIZING EACH

<130> 01/22283

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<170> PatentIn version 3.1

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Ile Ala Glu Asn Ile Ala Tyr Gly Asp Asn Ser Arg
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Val Val Ser Gln Glu Glu Ile Val Arg
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Ala Ala Lys
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Glu Ala Asn Ile His Ala Phe Ile Glu Ser Leu Pro Asn Lys
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 Tyr Ser Thr Lys
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Val Gly Asp Lys
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Gly Thr Gln Leu Ser Gly Gly Gln Lys
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Ile Ala Ile Ala Arg
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Glu Ser Glu Lys
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Glu Gly Arg
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Thr Cys Ile Val Ile Ala His Arg
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Val Lys
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Glu His Gly Thr His Gln Gln Leu Leu Ala Gln Lys
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Gln
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Thr Asn Gly Phe Pro Ala Thr Val Ser Asn Asp Leu Lys
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Leu Lys
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Pro Val Glu Lys
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Glu Ile Leu Ser Asn Ile Asn Gly Ile Met Lys
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Lys
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Pro Ala Asn Phe Lys
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Cys Asn Ser Gly Tyr Val Val Gln Asp Asp Val Val Met Gly Thr Leu
Thr Val Arg
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Leu Ala Thr Thr Met Thr Asn His Glu Lys
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Asn Glu Arg
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Ile Asn Arg
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Val Ala Asp Ser Lys
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 Val Gly Thr Gln Phe Ile Arq
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Gly Val Ser Gly Gly Glu Arg
1 5
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Lys
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Arg
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Asp Glu Pro Thr Thr Gly Leu Asp Ser Ser Thr Ala Asn Ala Val Leu
Leu Leu Leu Lys
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Arg
<210> 176
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124
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Met Ser Lys
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Gln Gly Arg
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Thr Ile Ile Phe Ser Ile His Gln Pro Arg 1 5 10
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<210> 179

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125
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Tyr Ser Ile Phe Lys
1 5
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Leu Phe Asp Ser Leu Thr Leu Leu Ala Ser Gly Arg
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Leu Met Phe His Gly Pro Ala Gln Glu Ala Leu Gly Tyr Phe Glu Ser
Ala Gly Tyr His Cys Glu Ala Tyr Asn Asn Pro Ala Asp Phe Phe Leu
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Asp Ile Ile Asn Gly Asp Ser Thr Ala Val Ala Leu Asn Arg
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Glu Glu Asp Phe Lys
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Ala Thr Glu Ile Ile Glu Pro Ser Lys
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 Gln Asp Lys
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 Pro Leu Ile Glu Lys
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Leu Ala Glu Ile Tyr Val Asn Ser Ser Phe Tyr Lys
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Glu Thr Lys
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Ala Glu Leu His Gln Leu Ser Gly Gly Glu Lys 1 \phantom{\bigg|} 5 \phantom{\bigg|} 10
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Lys
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Lys
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Lys
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Ile Thr Val Phe Lys
<210> 193
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Glu Ile Ser Tyr Thr Thr Ser Phe Cys His Gln Leu Arg
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Trp Val Ser Lys
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Arg
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Ser Phe Lys
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Val Val Leu Gly Leu Val Ile Gly Ala Ile Tyr Phe Gly Leu Lys
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Asn Asp Ser Thr Gly Ile Gln Asn Arg
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Ser Ala Val Glu Leu Phe Val Val Glu Lys
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 Lys
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 Leu Phe Ile His Glu Tyr Ile Ser Gly Tyr Tyr Arg
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  Val Ser Ser Tyr Phe Leu Gly Lys
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  Leu Leu Ser Asp Leu Leu Pro Met Arg
' <210> 204
  <211> 18
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  Met Leu Pro Ser Ile Ile Phe Thr Cys Ile Val Tyr Phe Met Leu Gly
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<210> 205

Leu Lys

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<400> 205

Pro Lys

<210> 206

<211> 73

<212> PRT

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<220>

<223> Computer generated synthetic peptide

<400> 206

Ala Asp Ala Phe Phe Val Met Met Phe Thr Leu Met Met Val Ala Tyr $1 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Ala Ser Ser Met Ala Leu Ala Ile Ala Ala Gly Gln Ser Val Val $20 \hspace{1cm} 25 \hspace{1cm} 30 \hspace{1cm}$

Ser Val Ala Thr Leu Leu Met Thr Ile Cys Phe Val Phe Met Met Ile 35 40 45

Phe Ser Gly Leu Leu Val Asn Leu Thr Thr Ile Ala Ser Trp Leu Ser 50 60

Trp Leu Gln Tyr Phe Ser Ile Pro Arg 65 70

<210> 207

<211> 41

<212> PRT

<220>

<223> Computer generated synthetic peptide

<400> 207

Cys Pro Gly Leu Asn Ala Thr Gly Asn Asn Pro Cys Asn Tyr Ala Thr $20 \hspace{1cm} 25 \hspace{1cm} 30 \hspace{1cm}$

Cys Thr Gly Glu Glu Tyr Leu Val Lys 35 40

<210> 208

<211> 12

<212> PRT

<213> Artificial sequence

<220>

<223> Computer generated synthetic peptide

<400> 208

Gln Gly Ile Asp Leu Ser Pro Trp Gly Leu Trp Lys

<210> 209

<211> 19

<212> PRT

<213> Artificial sequence

<220>

<223> Computer generated synthetic peptide

<400> 209

Asn His Val Ala Leu Ala Cys Met Ile Val Ile Phe Leu Thr Ile Ala 1 $$ 5 $$ 10 $$ 15

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Tyr Leu Lys
<210> 210
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<400> 210
Leu Leu Phe Leu Lys
<210> 211
<211> 1
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Lys
<210> 212
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137
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Tyr Ser
<210> 213
<211> 47
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Leu Tyr Met Val Val Gly Thr Leu Ala Ala Ile Ile His Gly Ala Gly
Leu Pro Leu Met Met Leu Val Phe Gly Glu Met Thr Asp Ile Phe Ala
Asn Ala Gly Asn Leu Glu Asp Leu Met Ser Asn Ile Thr Asn Arg
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Thr Arg

<210> 215

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Tyr Ala Tyr Tyr Tyr Ser Gly Ile Gly Ala Gly Val Leu Val Ala Ala 1 5 10 15
Tyr Ile Gln Val Ser Phe Trp Cys Leu Ala Ala Gly Arg
<210> 216
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Ile Gly Met Phe Phe Gln Ser Met Ala Thr Phe Phe Thr Gly Phe Ile
Val Gly Phe Thr Arq
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<220>

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Leu Thr Leu Val Ile Leu Ala Ile Ser Pro Val Leu Gly Leu Ser Ala 1 $$ 5 $$ 10 $$ 15

Ala Val Trp Ala Lys 20

<210> 218

<211> 68

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<400> 218

Ala Ile Thr Ala Asn Ile Ser Ile Gly Ala Ala Phe Leu Leu Ile Tyr 1 $$ $$ $$ $$ $$ $$ $$

Gly Glu Tyr Ser Ile Gly Gln Val Leu Thr Val Phe Phe Ser Val Leu 35 \$40\$

Ala Asn Ala Arg 65

<210> 219

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Ala Val Val Gln Val Ala Leu Asp Lys
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Asn Ala Asp Val Ile Ala Gly Phe Asp Asp Gly Val Ile Val Glu Lys
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<220>

<223> Computer generated synthetic peptide

<400> 222

Leu Val Thr Met Gln Thr Ala Gly Asn Glu Val Glu Leu Glu Asn Ala 1 5 10 15

Ala Asp Glu Ser Lys 20

<210> 223

<211> 14

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<400> 223

Ser Glu Ile Asp Ala Leu Glu Met Ser Ser Asn Asp Ser Arg

<210> 224

<211> 14

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<400> 224

Glu Ala Leu Asp Glu Ser Ile Pro Pro Val Ser Phe Trp Arg 1 5 10

<210> 225

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<220>

<223> Computer generated synthetic peptide

<400> 226

Gln Asn Ser Asn Leu Phe Ser Leu Leu Phe Leu Ala Leu Gly Ile Ile 1 5

Ser Phe Ile Thr Phe Phe Leu Gln Gly Phe Thr Lys

<210> 227

<212> PRT

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<220>

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                                    10
Ile Ser Phe Ile Tyr Gly Trp Gln Leu Thr Leu Leu Leu Leu Ala Ile
            20
                                25
Val Pro Ile Ile Ala Ile Ala Gly Val Val Glu Met Lys
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Phe Glu His Met Tyr Ala Gln Ser Leu Gln Val Pro Tyr Arg
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Ala His Ile Phe Gly Ile Thr Phe Ser Phe Thr Gln Ala Met Met Tyr

Phe Ser Tyr Ala Gly Cys Phe Arg

<210> 230

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144
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                5
                              10
 Gly Ala Met Ala Val Gly Gln Ser Ser Phe Ala Pro Asp Tyr Ala Lys
                               25
<210> 231
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Thr Pro Leu Ile Asp Ser Tyr Ser Thr Glu Gly Leu Met Pro Asn Thr
 Leu Glu Gly Asn Val Thr Phe Gly Glu Val Val Phe Asn Tyr Pro Thr
Arg
<210> 232
<211> 14
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Glu Ala Asn Ile His Ala Phe Ile Glu Ser Leu Pro Asn Lys
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Gly Ile Tyr Phe Ser Met Val Ser Val Gln Ala Gly Thr Lys
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Thr Asn Gly Phe Pro Ala Thr Val Ser Asn Asp Leu Lys
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<220>

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<400> 235

Ala Phe Thr Glu Gly Ala Val Leu Ser Phe His Asn Ile Cys Tyr Arg 1 $$ 15

<210> 236

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<400> 236

Glu Ile Leu Ser Asn Ile Asn Gly Ile Met Lys Pro Gly Leu Asn Ala 1 5 10 15

Ile Leu Gly Pro Thr Gly Gly Gly Lys

<210> 237

<211> 21

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<220>

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<400> 237

Asp Pro Ser Gly Leu Ser Gly Asp Val Leu Ile Asn Gly Ala Pro Arg 1 5 10 15

Pro Ala Asn Phe Lys

20

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Thr Val Arg
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Glu Asn Leu Gln Phe Ser Ala Ala Leu Arg
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<212> PRT

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Leu Ala Thr Thr Met Thr Asn His Glu Lys
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Thr Ser Ile Gly Met Glu Leu Ile Thr Asp Pro Ser Ile Leu Ser Leu
Asp Glu Pro Thr Thr Gly Leu Asp Ser Ser Thr Ala Asn Ala Val Leu
Leu Leu Leu Lys
  35
<210> 242
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<400> 242
Thr Ile Ile Phe Ser Ile His Gln Pro Arg
<210> 243
<211> 12
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<213> Artificial sequence
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<220>

<223> Computer generated synthetic peptide

<400> 243

Leu Phe Asp Ser Leu Thr Leu Leu Ala Ser Gly Arg 1 $$ 10

<210> 244

<211> 46

<212> PRT

<213> Artificial sequence

<220>

<223> Computer generated synthetic peptide

<400> 244

Leu Met Phe His Gly Pro Ala Gln Glu Ala Leu Gly Tyr Phe Glu Ser 1 $$ 10 $$ 15

Ala Gly Tyr His Cys Glu Ala Tyr Asn Asn Pro Ala Asp Phe Phe Leu $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30 \hspace{1.5cm}$

Asp Ile Ile Asn Gly Asp Ser Thr Ala Val Ala Leu Asn Arg 35 40 45

<210> 245

<211> 12

<212> PRT

<213> Artificial sequence

<220>

<223> Computer generated synthetic peptide

<400> 245

Leu Ala Glu Ile Tyr Val Asn Ser Ser Phe Tyr Lys

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<211> 13
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Glu Ile Ser Tyr Thr Thr Ser Phe Cys His Gln Leu Arg
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<210> 247
<211> 31
<212> PRT
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Asn Leu Leu Gly Asn Pro Gln Ala Ser Ile Ala Gln Ile Ile Val Thr
Val Val Leu Gly Leu Val Ile Gly Ala Ile Tyr Phe Gly Leu Lys
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<400> 248
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Ala Gly Val Leu Phe Phe Leu Thr Thr Asn Gln Cys Phe Ser Ser Val 1 $$ 5 $$ 10 $$ 15

Ser Ala Val Glu Leu Phe Val Val Glu Lys 20 25

<210> 249

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<212> PRT

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Ala Asp Ala Phe Phe Val Met Met Phe Thr Leu Met Met Val Ala Tyr 1 $$ 10 $$ 15

Ser Ala Ser Ser Met Ala Leu Ala Ile Ala Ala Gly Gln Ser Val Ser 20 25 30

Val Ala Thr Leu Leu Met Thr Ile Cys Phe Val Phe Met Met Ile Phe 35 40 45

Ser Gly Leu Leu Val Asn Leu Thr Thr Ile Ala Ser Trp Leu Ser Trp 50 55 60

<211> 19 <212> PRT

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Leu Gln Tyr Phe Ser Ile Pro Arg
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Tyr Gly Phe Thr Ala Leu Gln His Asn Glu Phe Leu Gly Gln Asn Phe
Cys Pro Gly Leu Asn Ala Thr Gly Asn Asn Pro Cys Asn Tyr Ala Thr
Cys Thr Gly Glu Glu Tyr Leu Val Lys
<210> 252
<211> 12
<212> PRT
<213> Artificial sequence
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<400> 252
Gln Gly Ile Asp Leu Ser Pro Trp Gly Leu Trp Lys
<210> 253
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<220>

<223> Computer generated synthetic peptide

<400> 253

Asn His Val Ala Leu Ala Cys Met Ile Val Ile Phe Leu Thr Ile Ala 1 $$ 5 $$ 10 $$ 15

Tyr Leu Lys